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PALAEOENTOLOGICAL SITE CONSERVATION AND
THE LAW IN BRITAIN

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ABSTRACT. The legal situation regarding palaeontological site conservation in Britain is unclear. There is no
modern review of the law. Five main areas of concern are identified. Most existing laws do not specifically
consider the needs of palaeontological conservation. Legislation empowers the Nature Conservancy Council
and local authorities to operate in this field but it is so unspecific that the efficacy of site conservation depends
upon policy decisions. The NCC is primarily concerned with nationally important sites, and responsibility
for recording other sites therefore falls upon the voluntary National Scheme for Geological Site Documenta-
tion. Local authorities have potentially useful powers. Site occupiers are disadvantaged by the damage
caused by, and to some extent the liability due to visitors, but they can forbid access to almost all sites on
private land. The ownership of fossils is in some areas unclear. Fossil collecting is normally illegal if it
involves trespass. The ownership of in situ fossils may be presumed to go with the mineral rights in the land,
and collecting them without permission may involve criminal damage and theft. Loose fossils may in some
cases be legally collected without express permission, if the landowner has not exerted rights of control of
access or ownership. This is potentially important for coastal exposures. The compulsory public ownership
of fossils is not likely to be a successful strategy in geological conservation. Resources are on the whole better
spent in education and popularization than on compulsion.

BRITAIN has virtually no laws specifically controlling the use of palaeontological sites, but many
which apply to it amongst other activities. The law as it exists applies to visitors and collectors,
including academics, tourists, and commercial workers. To some extent the law may treat certain
individuals differently from others. Thus more care must be taken for the safety of children and
rather more latitude may be allowed them when they do acts for which an adult would be penalized.
The law applying to palaeontological sites is uncertain in a number of respects and needs to be
adequately expanded.

We attempt here a review of the current (1988) legal situation in Britain, for which the most
useful previous review was that by Clements (1984a). Bonyhady (1987) reviewed the law relating
to the countryside. Shoard (1987) gave a valuable summary and critique of land ownership in
Britain, including problems of access and use of land, and Clayden and Trevelyan (1983) reviewed
the law on rights of way. For case studies of legislation on palaeontological sites outside Britain,
see: Canada, Currie (1984) and Ferguson (1988); Federal Republic of Germany, Wild (1986, 1988);
South Africa, Cluver (1977), Hall (1977), and Humphreys (1977); and USA, Clemens (1988) and
Marshall (1976). O’Keefe and Prott (1984 and forthcoming volumes) provide a valuable review of
law and the cultural heritage which is highly relevant to palaeontology, especially (but not only)
where it shares problems such as the ownership and reporting of finds.

The assumptions underlying British philosophy and practice are not necessarily valid. For
example, some countries, such as South Africa and Zimbabwe, link the palaeontological with the
cultural heritage, and conserve them under the same organization. In contrast, British practice is
to link biological and geological conservation under the Nature Conservancy Council (NCC). A
third option is to treat geology as an entirely separate subject.

One fundamental question is whether a fossil or a palaeontological site is treated as a cultural
monument. In Baden-Württemberg, Federal Republic of Germany, collecting a fossil automatically
makes it an artifact and therefore a potential cultural monument, whereas a fossil in situ remains
a natural monument (the term ‘monument’ is used by some countries to include movable as

well as fixed items: O’Keefe and Prott 1984; Wild 1986). Science is a cultural activity and, in this sense, a type specimen or a Hutton unconformity (such as Siccar Point, for example) become perpetual cultural monuments. (Indeed, Siccar Point is in some ways a more valid cultural monument than Stonehenge: Hutton’s interpretation of Siccar Point is still very much part of our culture whereas we have lost all continuity with the builders of Stonehenge.)

For whom are sites preserved (cf. Besterman 1988)? There has long been an élite tradition in conservation, preserving such things as the Site of Special Scientific Interest or the great country house. Social history now reflects more the life of the mass of the population, with the preservation of deserted medieval villages and Glasgow tenements. A site such as Lyme Regis in Dorset is palaeontologically important for its historical significance (as the place where Anning, Conybeare, and others worked), its modern scientific value for specialist study and research, and its role in public education, as a place where students, school parties, and holiday-makers can discover palaeontology for themselves. It may be that the third is the most important, benefiting more people and providing the vital political and financial backing for palaeontological conservation.

Palaeontological site conservation may usefully be linked to other conservation needs, such as that for general recreation areas. Most people are concerned with their local area, and want its ordinary humdrum countryside preserved: they value this most highly, yet it is most threatened precisely because it is so ‘ordinary’ (Shoard 1987, p. 550). The Lyme Regis coast is important to many people as a place to take the dog for a walk or to go fishing. However, the NCC is not necessarily concerned with the recreational or popular importance of sites (e.g. Black 1985; Benton 1988). Its operations, at least in geology, are strictly geared to sites of national scientific importance, and as discussed below it is not concerned with sites of ‘merely’ local importance.

The philosophical and organizational basis of British palaeontological site conservation is thus by no means the only possible one. With this important reservation, we discuss below what laws appear to exist in Britain, whether they are adequate, and how they might be improved. Five areas of concern are identified: 1, the general legal situation in Britain; 2, the specific legal powers and duties of the NCC and other organizations involved in palaeontological site conservation; 3, the legal duties and rights of site owners and occupiers; 4, the private ownership of fossils; and 5, the question of compulsory public ownership of fossils.

For the reasons given below, we are unable to say precisely what the law is, and users must not take this paper as a statement of the law. Instead we offer a contribution to the debate on what laws are needed for palaeontological site conservation.

THE LAW AND PALAEONTOLOGY

There is no one law covering the whole of the United Kingdom. English Law applies to England and Wales, and Scottish Law to Scotland. Northern Ireland is separately administered and is not further considered here, although in practice its common law is close to that of England. English and Scottish law remain independent, although they are similar in many respects. Scotland has its own system of courts and often separate legislation from England and Wales.

There is no publication outlining the law relating to palaeontological sites and specimens, such as a booklet that specifically summarizes the laws which affect site owners and collectors, in the manner of the NCC’s publications on wildlife law in general (NCC 1982) and how to deal with bats on one’s property (NCC 1986) (but see the very brief résumé by the Countryside Commission 1987, and Clements 1984a). There is no technical review of British or world law and palaeontology comparable to that by O’Keefe and Prott (1984 and forthcoming volumes) on the cultural heritage. Such a review seems a suitable subject for a commissioned report from the NCC (Anon. 1987d).

Both English and Scottish law are found partly in Acts of Parliament and secondary legislation (particularly the Statutory Instruments produced by the Department of the Environment and the Welsh Office or the Scottish Office) and partly in an accumulation of previously decided cases. Very little legislation deals specifically with palaeontological sites and it is thus the common law,
in the form of decided cases, which is most important. However, here too very few decisions relate directly to geology or fossils.

Do more generally applicable laws provide the necessary coverage for palaeontology? Some deal with universal matters such as taxation, health and safety, or property. Others control more restricted areas, such as mineral rights. Whatever their scope, any of these laws might be found to have unfortunate effects when applied to palaeontology. The experience of archaeology shows that statutes or judicial interpretations framed to suit other purposes and times can be inappropriate when brought to bear upon questions for which they were never designed (O'Keefe and Prutt 1984). The looting of ancient wrecks has been upheld by United States courts as legitimate under the laws of salvage intended for today's wrecks.

The English law of Treasure Trove, which was defined in its present form in Tudor times, was devised to seize hidden gold and silver to raise revenue for the King. It is now used to obtain major archaeological finds for the nation, although it is plainly inappropriate to modern concepts of cultural material and its archaeological context (Law Commission 1987). In Scotland the Crown lays claim to a much wider range of finds. However, under both systems, rewards are made to those who make the finds, whether or not these are the owners of the land. This can lead to conflicts with property law and criminal law, and in particular with the law designed to protect the archaeological heritage (McDonald 1986; Robertson 1987). Currently (1988) the law of Treasure Trove is being reviewed, partly in the light of a Law Commission paper (1987). The Department of the Environment is carrying out consultations which go wider than Treasure Trove and aim to find a satisfactory system for protecting archaeological sites and portable antiquities generally. It seems an opportune time to give attention to the law relating to palaeontological finds.

THE ORGANIZATIONAL FRAMEWORK

A number of public bodies are statutorily empowered to carry out the conservation of geological sites. The empowering legislation may require them to do this work, or it may simply give discretionary powers for an optional involvement. The less that is laid down by the law, the more scope there is to vary actual policy. Thus discussion of policy is inseparable from discussion of legislation.

The Nature Conservancy Council

The NCC is empowered by legislation (mainly the Wildlife and Countryside Act 1981) to conserve biological and geological localities (Black 1984, 1985; Richards 1987). This is mainly done by the identification and designation of important localities as Sites of Special Scientific Interest (SSSIs). For each site, the NCC can (subject to compensation) specify a list of prohibited activities, 'Potentially Damaging Operations' (PDOs), and serve this on the owner. These PDOs include, at the NCC's discretion, research, collecting, and recreational use (nos. 25 and 27). Owners and occupiers breaching these rules without prior permission, or without giving 3 months' notice to the NCC, become liable to criminal prosecution. They are also liable for the damaging activities of visitors who are given their permission to go on the site. However, a trespasser would be liable in trespass and the owner or occupier would not be responsible for damage caused. Under section 29 the Secretary of State for the Environment may provide more substantial protection for certain SSSIs, and there anyone carrying out an operation may be criminally liable, with heavier sanctions. However, as this provision may permanently prevent a landowner from using his land as he wishes, it involves the payment of compensation and is therefore rarely used. Further control may be exercised by management agreements under the National Parks and Access to the Countryside Act 1949, section 16, for nature reserves, or the Countryside Act 1968, section 15, in respect of SSSIs. Such agreements may also now be made in respect of Environmentally Sensitive Areas under the Agriculture Act 1986, section 18. Any of these may be used to protect geological sites, but presuppose the use of public funds to pay for the agreement.
The policy which the NCC uses to implement this legislation is clearly critical (Anon. 1986, 1987a; Black 1985, 1987; Crowther 1985; Smith 1986; Stanley 1985a). One question is the discretion which NCC staff have to impose PDO restrictions, which bears upon the goodwill of landowners and the possibility of geological research and field-work. Further questions include the low status and staffing of geology within the NCC, especially in the Regional Offices dealing with day to day matters of site conservation and management. Conservation of geological sites tends to be carried out by biological staff, although the methods and philosophy of biological conservation may not be useful in conserving geological sites. The major policy document _Nature conservation in Great Britain_ (Ratcliffe 1984) almost completely omits the earth sciences, suggesting a bias in policy towards the biological sciences, and hence by implication neglect of the earth sciences. (This raises questions of whether the legislation establishing the NCC was in fact sufficiently explicit as far as its geological work is concerned, and even of the need for new legislation for a separate conservation body for geology.)

The NCC has depended heavily on the voluntary help of outside geologists in the selection of SSSIs. It has left a second responsibility to outsiders: the designation and management of sites which are not deemed to be nationally important. For example, the NCC has only recently (1988) been persuaded of the need for a national Geological Records Centre for site records (not just SSSIs), whereas it has long partly funded the highly effective Biological Records Centre (Harding 1984). The NCC provides little help to regionally based recording centres in geology or biology, in contrast to archaeological recording which can draw directly upon central government funds (Boylan 1982, 1985). But these ‘only’ locally important sites are highly relevant to site conservation. Their use takes pressure off the nationally important sites, and they provide regionally and locally accessible resources for users. The National Scheme for Geological Site Documentation (NSGSD; see below) and other users also provide local expertise for identifying new national sites for the NCC’s Geological Conservation Review, and perhaps agencies for monitoring and maintaining existing SSSIs.

The NCC can be overridden by central or local government during major planning inquiries. This can lead to anomalies, such as when the NCC prosecuted a minor operator but not the Wessex Water Authority for damaging Chesil Beach (Anon. 1979, 1982, 1987b; Carr 1983).

**Local authorities**

Local government in Britain is generally based upon two tiers of organization: District Councils and larger County Councils in England and Wales, and District Councils and Regional Councils in Scotland. However, there is a unitary system with a single tier of District Councils within the recently abolished metropolitan county areas, London Borough Councils in Greater London, and Islands Councils in the Scottish islands. Byrne (1986) reviewed local government in general and Lewis (1984) summarized the legislation relevant to museums.

Local authorities are neither required nor specifically empowered to carry out site conservation and recording. They do, however, have under the law relevant discretionary powers and obligations in planning, education, and museums.

Counties (or Regions) and Districts are responsible for planning land use in their areas. In England and Wales, apart from London and the other short-lived metropolitan areas, mineral extraction is a County responsibility, although in Scotland it is dealt with at District level. New development may only proceed legally after the local planning authority or the relevant Secretary of State has granted planning permission. Geological site conservation can validly be taken into account during the process. In particular, the authority has an obligation to consult with the NCC on any planning application affecting an SSSI. There is discretion to give permission for development of an ordinary SSSI, but unless the NCC agrees otherwise it must be allowed a period of 4 months from when it is given notice. This may enable an agreement to be worked out which will ensure, for example, that any fossils found in the course of development are saved.

There are major problems in using the planning machinery in geological conservation. The planning department must obviously be informed as early as possible about the importance of a
site, particularly if it is not deemed to be of national importance (and thus falls outside the NCC’s remit), but few if any have geological expertise. Some rely on external advice, perhaps from the local authority museum. In some cases, such as Leicestershire, the archaeological, biological, and geological sections of the county museum service are specifically required to record sites and advise the planning department, which automatically consults them on proposals affecting sites (Boylan 1982, 1984, 1985). The local authority can grant itself permission for controversial developments, while agricultural operations and those of the central government and the Crown (e.g. on the foreshore or sea-bed) are almost completely exempted (Shoard 1987). Central government can overrule a local government decision. Furthermore, under section 180 of the Town and Country Planning Act 1971, a local authority can become liable to purchase land which has become ‘incapable of reasonably beneficial use in its existing state’ if it refuses planning permission for some appropriate alternative use.

Councils may take more positive action on land which they own or manage. They are empowered to preserve and enhance the townscape and countryside by creating country parks and nature reserves. They may regulate activities on their land by passing by-laws. Under the National Parks and Access to the Countryside Act 1949, local authorities have powers to establish nature reserves (section 21), and create access agreements (section 64) or make an access order enabling the public to go on to private land (section 65), while restricting operations carried out by occupiers on land subject to access agreements or orders (section 66). Land subject to an access agreement or order will be open country, such as a stretch of cliffs, which is not being used for some particular purpose such as agriculture or quarrying. This provision can be used to create public access to fossil sites. This work need not always be done by planning departments: other departments, such as museums and education departments, or most commonly Leisure and Recreation departments, may take over at least the day to day responsibility of managing a site.

No local authority, so far as we are aware, operates a geological site recording service under its powers for education.

Museums are the repositories of fossils, data, and expertise, yet there is no systematic provision of adequate museum services (Lewis 1984; Doughty 1985). Local authorities are required to provide a library service to specified standards. In contrast, local government is only empowered, not required, to operate museums services and there exists no legal definition of an adequate museum service. In England and Wales, under the Public Libraries and Museums Act 1964, the Local Government Act 1972, and subsequent Acts, museums other than National Museums are a discretionary and concurrent function of County and District councils. In Scotland the Local Government and Planning (Scotland) Act 1982 removed museum powers from the Regions, leaving them to the much smaller Districts. Many areas in Britain thus lack local government museums at all; others have small, individually inefficient district museums, none of which can employ a geologist. University and independent trust museums provide only limited cover for some of these gaps. The consequence is a lack of specialist expertise to look after the museums’ existing collections, carry out a public service, and provide a link (and perhaps a base) for site recording and preservation (Doughty 1981, 1985; Torrens 1984; Miles 1986; Knell 1987).

Local authorities’ powers relating to the preservation of archaeological sites and old buildings may offer a model for the conservation of palaeontological sites. Under the Ancient Monuments and Areas Act 1979, the Secretary of State is responsible for scheduling ancient monuments (section 1), but under section 33 there are powers to designate an area as one of archaeological importance in which it is an offence to carry out operations without appropriate notice. These powers may be exercised by local authorities with the approval of the Secretary of State, or by the Secretary of State alone. However, they are in practice only used for major sites in historic city centres. Local authorities also have powers to protect buildings under the Town and Country Planning Act 1971 as amended by the Town and Country Amenities Act 1974. If a building has not been protected by being centrally listed by the Department of the Environment under the Town and Country Planning Act 1971, section 54, a District Authority or a London Borough Council may serve a building preservation notice to give short-term protection under section 58.
occuper to visitors, for example by requiring the signing of forms of indemnity. However, this exclusion is only prevented where the liability is ‘liability for breach of obligations or duties arising—(a) from things done or to be done by a person in the course of a business (whether his own business or another’s); or (b) from the occupation of premises used for business purposes of the occupier’. The addition made by the 1984 Act is that even where the occupier is using his land for business purposes he can exclude liability to persons ‘obtaining access to the premises for recreational or educational purposes, being liability for loss or damage suffered by reason of the dangerous state of the premises’ unless the visitor was granted access in the course of the occupier’s business. In other words, a quarry operator could not exclude liability if he made a business of allowing the public on to the site. However, if the operator’s business was simply to extract stone then he could restrict or exclude liability to visitors who came for educational or recreational purposes.

Trespassers are not given the same degree of protection but, especially if they are children, they are owed some duty of care by occupiers under the Occupiers’ Liability Act 1984. Those who are admitted to land under access agreements in accordance with the National Parks and Access to the Countryside Act 1949 are not trespassers but are owed a duty similar to that owed to trespassers by the occupier. They do not have the protection of visitors.

Given the disadvantages to occupiers of allowing access, it is clearly up to those allowed on to sites to avoid undue damage; for example, by following the Countryside Code and the Geologists’ Association Code of Geological Fieldwork. They are more likely to be allowed access if they provide their own insurance cover that indemnifies the occupier.

It is important to appreciate that, according to British law, there is no right of access to land unless there is some clear indication to the contrary, unlike many foreign countries; in Sweden, for example, there is free access to all land with some common-sense exceptions (Shoard 1987). In Britain entering on land without permission is the offence of trespass. This is normally a civil offence, not a criminal one, so that the owner cannot prosecute the trespasser but must take the expense and trouble of suing in the civil courts. However, trespassing on railway land (e.g. to examine a cutting) is a criminal offence. Trespassers who damage land or anything on it or take items from the land may also be guilty of criminal offences of criminal damage or theft. If they refuse to leave, then an altercation which degenerates into violence can lead to criminal proceedings. English law has rather more severe restrictions than Scottish law. In England, damages can be awarded for trespass even when the land has suffered no harm.

Visitors may traverse private land on a public right of way but it is often stated that such access is only permitted for the purpose of travel between two points and there is strictly speaking no right to other activities, even sitting down for a rest or looking at the scenery (see Clayden and Trevelyan 1983 for a review). Claims have been made that the rights of the public over public rights of way are more extensive (see Bonyhady 1987). However, they would not extend to removing anything from the soil of a footpath or adjacent land. Rights of way have to be formally designated and many were lost when local government failed to map them during the process of designation under the National Parks and Access to the Countryside Act 1949, now replaced by the Wildlife and Countryside Act 1981, part 3.

There is consequently very little land in Britain where free access is a right rather than a favour which can be withheld. Almost all geological field-work is thus totally dependent upon the goodwill of the landowner, and in turn upon the perceived damage to privacy, farming, quarrying, and country sports (such as foxhunting or pheasant shooting). Local authorities seem to make little, if any, use here of their powers to make access agreements and orders under the National Parks and Access to the Countryside Act 1949. It must, however, be said that sites on private land often suffer less damage than those on land where the public has free access.

The rural landowner is generally immune from planning permission for ‘agricultural’ operations, which can have serious consequences for geological fieldwork (Shoard 1987). These might, for example, include dumping ‘slurry’ (faecal waste) from indoor animal rearing into a quarry, or destroying and obscuring landscape features such as Pleistocene and postglacial deposits by
The National Scheme for Geological Site Documentation

Since 1977 the NSGSD, under the aegis of the Geological Curators' Group, and from 1983 the Conservation Committee of the Geological Society (Clements 1984a), has provided a national framework and standards for locally based recording centres to record and monitor sites at all levels (Clements 1984b; Stanley 1984, 1985a, b; Stansfield 1984). The NSGSD has attained a remarkable degree of standardization of procedures compared with biological and archaeological site recording. Nevertheless its operation, like that of biological recording (Copp 1984), depends very largely upon a mixture of local government museum curators, teachers, voluntary groups, and short-term Community Programme (Manpower Services Commission) schemes, and some areas of the country are not covered. These groups have varying aims and some are more concerned with relatively private academic interest rather than site conservation or interpretation. More importantly, few of these groups are geared to provide site information at an early stage before major commitments are undertaken by developers or planners (Francis 1984). There is clearly a need for locally available information which neither the NCC's and British Geological Survey's centralized databases nor the small amateur group meet.

The answer (Copp 1984; Garland 1985) has been said to be systematic provision of permanently staffed local records centres where developers, planners, and geologists can all quickly obtain the information they require. The need for permanence implies operation by local government or by the NCC. There is no statutory requirement for local government to operate environmental records centres as such, but the centres are highly relevant to the statutory roles of planning and education, and the discretionary role of museum services. Many planning departments operate archaeological sites and monuments records and have archaeologists, but few if any do the same for geology and biology. If a local authority operates a geological records centre, it is usually as part of its museum service. Museums have clear roles in collecting, education, and research, and their libraries, collections, and staffs hold much information about the local area. They can give comparatively independent advice to all enquirers in a way which might perhaps not be possible if the records centre was operated by the planning department (cf. Museums Association 1987). There should be close contact with the planning and education departments, streamlining the enquiry process, as well as the parallel checks for biological and archaeological significance.

Summary

Existing legislation empowers British central and local government to set up what could be an effective organization for palaeontological site conservation but, on the other hand, it neither requires nor enforces its establishment. There are plainly adequate discretionary powers but these are not at present being invoked sufficiently frequently. A change in legislation may be necessary, to make environmental recording a statutory rather than discretionary responsibility. Until then, palaeontological site recording and conservation will continue to depend upon the discretionary policies of a wide range of bodies, including central government itself, its agencies such as the NCC and British Geological Survey, local government departments, and various semi-public and private bodies such as universities, charitable trusts, and private landowners. Only a small proportion of these presently put adequate resources into the task, even when they recognize the need.

POWERS AND LIABILITY OF SITE OCCUPIERS

The conservation of geological sites implies their use by visitors, and therefore imposes liabilities upon the occupier. The result is a presumption against giving permission for access (Black 1985; Heather 1984; Noel 1984; Ormrod 1984). Some visitors damage land, crops, and livestock, or commit nuisances by their general behaviour or their geological activities. More generally, under the Occupiers' Liability Act 1957 occupiers are legally liable for the safety of visitors who are on their land with permission. The Unfair Contracts Terms Act 1977 as amended by the Occupiers' Liability Act 1984 prevents the occupier excluding or restricting liability for negligence or as an
drainage and afforestation (except at SSSIs where these have been defined as PDOs). However, the pattern of agriculture is currently very much open to change (e.g. due to European Community policy or technological innovations) and there may be increased pressure and opportunity to restrict agricultural operations, especially changes of land use from arable or pasture land to forestry. This could be an important opportunity to protect sites.

**OWNERSHIP OF FOSSILS**

Collecting legally involves a fundamental transfer of property between the finder and the previous owner of the uncollected fossils. There are two main kinds of fossil from the legal point of view: fossils *in situ* in the ground, and loose fossils lying on the ground surface.

*Ownership of fossils in situ*

It may be presumed that the owner of fossils *in situ* is the person who holds the relevant mineral rights for that piece of land. Fossils are made up of minerals, and many ‘minerals’ (such as coal, oil, and limestone) are themselves fossils. The celebrated civil law case of *Elwes v. Brigg Gas Co.* (1886, and see Nash 1987) involved the ownership of a prehistoric dugout canoe discovered in 1885 in the alluvium of the River Ancholme at Brigg, South Humberside. The judge posed the question of whether the boat was a fossil. Coprolites, which are fossils, had been held to fall within the legal definition of a mineral: ‘every substance which can be got from underneath the surface of the earth for the purpose of profit, unless there is something in the context or in the nature of the transaction to induce the Court to give it a more limited meaning.’ If the boat was a fossil, it would clearly be within the mineral rights held by the landowner. As it happened, the judge did not need to define the boat as a fossil since he decided that the boat had undoubtedly vested in the landowner even if it retained its character as a chattel.

The matter is unfortunately complicated by the lack of any generally applicable statutory definition of a mineral. Past cases offer several conflicting interpretations, as summarized in the judgment in the case of *Earl of Lonsdale v. Attorney-General* (1982). This hinged on whether oil and gas came under the terms ‘all other mines and minerals (if any) down to the bottom of the coal measures’ in a lease of 1880 concerning the mineral rights to an area under the sea off Cumberland, when oil and gas extraction were not thought of. The judge, Slade J., reviewed past cases on the definition of minerals and decided that the material definition in the particular case under question was what contemporary men of business understood to be a mineral in the context of the original transaction of 1880. This is much less helpful for clarifying the relationship of fossils to minerals than the more straightforward definition in the 1886 case. Slade J. did, however, note that items necessarily won in the course of getting the mineral of primary interest were included in the rights for that mineral. Thus fossils found in the limestone overlying a coal seam in an opencast pit would go with the rights to that coal.

It is important to note that the occupier, the landowner, and the person who holds the mineral rights may all be different. The landowner will normally retain the general mineral rights where the land is occupied by a tenant using it for agriculture or other purposes apart from mineral extraction (*Elwes v. Brigg Gas Co.* 1886). Rights for different minerals can also be granted to different people or bodies. The State holds the rights to coal, oil, gold, and silver, with a few exceptions (e.g. coal in the Forest of Dean), while the owners of the remaining mineral rights can sell or lease them separately from the land (e.g. Shoard 1987, p. 169). The legal definition of each kind of mineral may then be critical, especially when a single site may contain two or more ‘minerals’ whose rights are held separately. The straightforward geological definition may not apply. In the Torbanachill case of 1853, West Lothian oil shale was decided to be coal because it came out of the ground and was inflammable (Lyell 1853; Miller 1891).

The occupier of the land provides access and therefore has a right in the matter even without holding the mineral rights. Fossil collecting may thus involve permission from the occupier, even if there is a separate owner of the mineral rights. Permission may be given at no cost or it may
involve a flat rental or a royalty fee. Stan Wood, for example, pays rental on the East Kirkton quarry to the landowner, West Lothian District Council, as well as a percentage royalty on the unimproved value of the fossils as extracted, and a fee to the farmer occupying the land (S. P. Wood, pers. comm. 1987).

Otherwise, fossil collecting is basically a matter for the landowner and the collector alone. Local government can only intervene if there is a breach of a local planning law, such as a substantial change of use or other illegal action. The NCC can only take action if the site is a Site of Special Scientific Interest and fossil collecting is listed as a specific PDO or there is some other management agreement between the NCC and the owner.

The law as to ownership of in situ fossils thus seems relatively clear: they belong to the holder of the relevant mineral rights. They cannot belong to any visitor collecting without permission. Digging for fossils without permission is in itself an act of trespass. It may amount to criminal damage to the land, and if fossils are taken away this may be theft.

Loose, abandoned fossils

It is commonly possible to collect loose fossils which are not in any way fixed to the land: for example, on a quarry tip, or an eroding sea-shore. Is it then legal to collect fossils without specific permission, if the landowner has effectively abandoned them? A standard interpretation of the Theft Act 1968, section 1, is that: there can be no theft of things of which ownership has been abandoned. This raises two questions, whether a person taking a loose fossil is guilty of theft, and whether he can acquire a good title by taking it. A person who thinks that something has been abandoned may well claim that he is not dishonest, and therefore escape prosecution and conviction for theft. However, if the item has not in fact been abandoned, then the landowner may be able to claim it back.

In Scotland, as opposed to England, no moveable item, any more than a piece of land, can be ownerless; it reverts to the Crown. Even so, in Scotland as in England, a person taking such an item in the honest belief that it was abandoned would seem to have a good defence against a criminal charge of theft.

It is clear that a trespasser cannot claim any right to title of a fossil which has been obtained during a trespass. Similarly, when a visitor is allowed on to land for a particular purpose, and he goes beyond that purpose to collect fossils, he becomes a trespasser. If someone was allowed on land to look for fossils and was specifically told not to take them away without asking the landowner, then taking them without permission would not give a good title and would amount to theft.

Implied licence and estoppel

Where a person is allowed on land either with express permission, or where the landowner has not objected to public entrance over a long period to search for fossils, then there may be an implied licence on the part of visitors to take what they find. In such circumstances a landowner who does not interfere with individuals removing fossils could well at any rate be estopped from taking them back later; in other words, a court could refuse to order the taker to return the fossils. However, the doctrine of estoppel requires the defendant to act to his detriment in relying upon the action or inaction of the plaintiff. Thus if a landowner saw a fossil collector carrying away a specimen and insisted on having it back, the court might only reject the landowner's claim if the collector had spent significant time and energy or money on recovering the fossil. This would obviously cover an item which was excavated over a long period and was then assembled, polished, or treated in some way in the finder's workshop. Where a fossil finder successfully claims a licence to remove loose finds but not to excavate finds in situ, he may find a specimen broken in two, partly in a loose block which he may take, and partly in situ where he must leave it unless he obtains permission to remove it as well.

A landowner may doubtless make the hitherto effectively free removal of fossils unlawful by putting up clear notices or otherwise advertising a ban on collecting. Nobody taking a fossil could then claim good title, even if the fossil was shortly to be destroyed by the elements and the
landowner did not remove it himself, however attractive this may be where one is concerned to save fossils.

In Scotland, abandoned loose items are 'moveables' and revert to the Crown, but fixed 'heritable' property cannot be abandoned and remains the property of the owner. Waste mineral material, including fossils, dumped on the same land from which it was excavated, would not normally be regarded as abandoned. It is illegal to excavate fossils from such property without permission even though they then become 'moveables'.

In England, rules of limitation will apply where specimens have been removed for a long time. Where they have been removed honestly but without any actual legal authority the original owner will normally lose his right to recover them after 6 years. Where a purchaser in good faith buys a stolen specimen, the original owner loses his right to reclaim the item 6 years after the sale. In certain circumstances, especially in London, a principle known as the rule of market overt allows an item to be sold so that its owner loses his title even if it has been stolen. In Scotland, even where an item has been honestly taken, the owner may have a right to recover it for up to 20 years, although a claim for damages against an honest taker may be precluded after only 5 years.

The foreshore and sea-floor

Another area of uncertainty is the ownership of fossils on the foreshore below high-water mark, as this also involves the question of possible abandonment by the landowner. In Britain about half of the foreshore and the whole of the seabed under tidal waters out to the territorial limit are part of the Crown Estate, the landholdings of the Sovereign, and administered by the Crown Estate Commissioners (Sheard 1987). In addition, the foreshore around Lancashire is held personally by the Queen as Duke of Lancaster and that around Cornwall by the Prince of Wales as Duke of Cornwall. Much of the rest of the foreshore is held by landowners such as local authorities. For example, Edinburgh District Council claims rights to specimens from the conodont animal locality at Granton. Not all holders of rights are so tenacious. The borough of Lyme Regis held the rights to its foreshore and certainly exerted them when drawing royalties for stone quarrying but it is not known to have made any attempt to control or charge for fossil collecting during the Victorian peak when fossils fetched very high prices in real terms (J. Fowles, pers. comm. 1987).

Around Lyme Regis and Charmouth, Dorset, and on the Isle of Wight (but not necessarily elsewhere), the rapid erosion of the foreshore and slipping of the cliffs above give rise to two characteristic problems. Material fallen from the cliff above high-water mark, and certainly material in situ, remain the property of the landowner above that mark. But it could well be honestly, though incorrectly, interpreted by a fossil seeker as abandoned to coastal erosion, and free for the taking. Loose material which has ended up below high-water mark may indeed be correctly regarded as abandoned, in which case the landowner would presumably only retain full rights to the specimens by taking some positive steps to lay claim to them, in practice by recovering them himself or authorizing someone else to do so.

The rights and duties of the finder

Apart from any legal rights, the finder of a fossil has certain moral rights due to the work and value added by finding it in the first place and perhaps by excavating and preparing it (see especially discussion in O'Keefe and Prutt 1984). For example, Stan Wood pays royalties to the landowner based on the unimproved value only of East Kirkton fossils (S. P. Wood, pers. comm. 1987). Indeed, one might ask: is the fossil worth anything at all until someone finds it? The answer would depend upon rarity and predictability. An exceptionally rare fossil such as a dinosaur at Lyme Regis is effectively valueless until it is found, and the finder thus causes the specimen to have virtually all its value. On the other hand, a continuous bed such as 'COTHAM MARBLE' or the 'Rhaetic Bone-Bed' is entirely predictable in its occurrence and any value added by the collector must come solely from the work of collection, not finding. The compensation fee paid for fossils seized by the State at Holzmaden, West Germany, includes a component for rarity value and another for expenses incurred in collection (Wild 1986).
Conversely, finders of fossils may have specific duties incurred by their employment or support. Museum curators responsible for geological collections are commonly not permitted personally to acquire or sell fossils since this involves a conflict of interest with the museum itself (Museums Association 1987). An employee who finds fossils on the employer's land would presumably be obliged to hand them over to the employer, especially if that employer is a conservation agency such as the NCC or National Trust. A researcher whose work is funded by a public body such as the Natural Environment Research Council or a university would also be obliged to deposit any specimens collected in a public institution, rather than sell them for personal profit.

Conclusions

Unless fossils as such become public property (which we discuss below), then the legitimate collection of fossils and rocks, and therefore the use of many geological sites, depends upon property law. In situ fossils cannot legally be collected without permission, and it is usually relatively simple to place a control on the legal collection of loose fossils, however difficult it is to control illegal collecting. The main uncertainties are the definition of mineral rights where these are not all retained by an owner-occupier, and the possible abandonment of fossils, but these will apply in practice to only a few sites. There is plainly a need for a thorough review of existing law, perhaps under the auspices of the NCC. In any case, the laws, which to a large extent were devised for circumstances different from those of today, are not suited to deal with the modern usage of geological sites. Application of the law to such sites lacks clear precedents. Legal disputes may thus lead to expensive test cases. It may be possible to avoid such legal cases for a given site (if not in the long run) by finding some compromise in management. This requires a sensitivity and local knowledge which is in many areas unavailable to landowners or local and national agencies, due to the patchy coverage of site recording and expertise.

The coast around Lyme Regis and Charmouth, Dorset, is one area where one might expect conflicts to arise over the fossils, which are very occasionally worth thousands of pounds. However, the fossils will be lost to coastal erosion unless they are collected, and the collectors have for many years enjoyed the effective right of free collecting. Indeed, the borough of Lyme Regis has never attempted to control collecting (see above) and its successor, the parish council, declined to join the attempt of the neighbouring Charmouth Parish Council to ban collecting of fossils (Fowles 1986, pers. comm. 1987; Taylor 1988). The coast is now managed as a free access area where people can collect fossils for education and recreation. It seems that the right of ownership of the fossils has effectively been given up in favour of wider benefits such as education and tourism.

In contrast, the very different conodont animal locality at Granton, Edinburgh, is mainly at risk from overcollecting and is not naturally renewed (but see discussion in Taylor 1988). Edinburgh District Council, who hold the foreshore rights, have forbidden collection of in situ fossils and retain their rights in the specimens held by the Royal Museum of Scotland and other museums but do not exercise them so long as the specimens are cared for (E. N. K. Clarkson, pers. comm. 1987).

Banning seaside fossil collecting runs the risk of being as counterproductive as the American Prohibition of alcohol in the 1920s. Licensing may fail to be effective, as it has in comparable situations such as with current British dog-licence legislation. There is no merit in introducing law which is either broken by most of the population or is effectively unenforceable.

Fowles (1986) has argued that it is impractical to police completely any ban on unlicensed collecting in the Lyme Regis and Charmouth area, which involves only several miles of coast. It is not clear whether in a situation of this sort the revenue from straightforward licence or royalty fees would offset the cost of the staff needed for effective policing and administration. Presumably the remainder of the cost would have to be met from other funds, but this could be justified if the aim of the scheme was to promote recreation and enjoyment rather than control alone. If the area in question is deliberately opened to the public then there may be some obligation to provide staff to ensure public safety and to restrict collecting in dangerous or sensitive areas, such as in cliffs and under buildings.
If enforcement alone is impractical then a licensing system will only work with some success if the collectors gain some benefit, such as clear title to their specimens, especially in areas where the landowner has started to exert rights to the fossils. It may also be possible to provide some sort of public service, such as an information pack and perhaps identification by a palaeontologist, although this last raises the question of commercial liability in cases of incorrect identification. Information and identification are in any case normally provided free or at near-cost price (for publications), as at most museums. This would encourage finders to report legitimate finds. On the other hand, compulsory purchase of selected fossils might be a deterrent unless it was very sensitively done.

The conclusion seems to be that at Lyme, and at most other foreshore exposures, it will be effectively impossible for the foreshore holder to control all collecting. The obvious consequence will be that specimens will still be collected, whatever restrictions are imposed. If this is made illegal, or otherwise subject to sanctions, then the specimens will disappear into an underground ‘black market’ and become lost to the geological community. We discuss enforcement further below; see also the discussion in O’Keele and Prutt (1984).

**PUBLIC OWNERSHIP OF FOSSILS**

Should private ownership (as opposed to collecting) of fossils be controlled, as by bans on their import and export? Indeed, should fossils be ‘nationalized’ and taken into public ownership? Can such schemes be drawn up and enforced?

**Control of ownership**

No British law permits the seizure into public ownership of items of the natural or man-made heritage which are otherwise legitimately owned privately. Apparent exceptions, such as the Merchant Shipping Act 1894 governing wrecks, and the laws of ‘Treasure Trove’ in England and Wales, and Bona Vacantia in Scotland, all deal with unclaimed or ownerless property. However, the finders are paid the full market value of property seized under ‘Treasure Trove’ or Bona Vacantia.

**Import and export.** The import and export of fossils is effectively uncontrolled. The United Kingdom has not ratified the UNESCO Convention on the means of prohibiting and preventing the illicit import, export and transfer of ownership of cultural property 1970 which does suggest means suitable to cover geological specimens (and note the German definition of fossils, once collected, as cultural artefacts: Wild 1986). The Import, Export and Customs Powers (Defence) Act 1939 and Export of Goods Control Order, Statutory Instrument 1987.2070 (the existing system for controlling the export of cultural artefacts by granting export licences) do not include geological material (unless work done on it makes it ‘goods manufactured or produced’, i.e. man-made items, more than 50 years old). Extending this scheme to palaeontology would be of limited help. The export of only the very finest artefacts is banned, if so decided by the Reviewing Committee on the Export of Works of Art. Other, often outstandingly good, material is allowed to proceed after a set period of several months if a British museum cannot match the sale price. Normally, too, the scheme only applies to items worth £16000 or more (Anon. 1985), which would protect only the very finest fossils and minerals. Very few, if any, British museums are accustomed to paying these prices for geological material or to raising the cash quickly (Doughty 1985; Taylor 1988).

**Public ownership.** Should fossils automatically become public property on the grounds of their scientific and educational importance, as in Holzmaden, Federal Republic of Germany (Keller 1985; Wild 1986, 1988)? This superficially attractive solution is likely to cause more problems than it solves. As at Holzmaden, the two essential elements of a compulsory purchase system must be compensation and selectivity. We would need to find new sources of public money for compensation funds. Selecting specimens is even more difficult: who decides, and when? We simply cannot
criminalize all collectors of all fossils, otherwise we will end up prosecuting children on the Lyme
Regis beach, and quarry operators working limestone. Given this, it will be necessary to set out
lists of ‘proscribed’ fossils that must be reported to the relevant authority. Yet how can these lists
cover cases where new fossils are being discovered? How new is new? Who defines the market
value? And how can a collector tell what species he is excavating? Most importantly, such a
selective, and effectively voluntary, system simply cannot be policed, with the obvious result that
precisely those fossils of greatest interest to the public and science will disappear into an illicit
trade. Fowles (1986) and Wimbledon (1986) argued that such control systems are best avoided in
this country. Much the same problems of control apply to any system of licensing for collecting
in general (Wimbledon 1986).

Duty to report finds. A possible compromise would be to require fossil finds to be reported on pain
of a fine, following the model of the Bill currently being prepared by the Council for British
Archaeology (Nash 1987). Is this idea useful in palaeontology? The archaeologists wish to at least
record as many specimens as possible, with their contexts. A find is important because of its
inherent nature as a specimen, its stratigraphical context, and its geographical location. Obviously
any find has geographical value (as, for example, when plotted upon a distribution map) even if
its inherent value or its stratigraphical value is nil. Thus, reporting of finds in theory ensures the
preservation of archaeological information for use by the wider community, although in practice
it may not be enforceable.

By contrast, in palaeontology only a small minority of fossils are of real value in any of the
three senses cited, especially since many are found by unskilled members of the public. (One
exception may be the taphonomic value; for example, the evidence for palaecurrents from
orientation.) The introduction of a general duty to report fossil finds would be bad law. It could
not be enforced since most people would be unaware of it, and it would be irrelevant to the vast
majority of fossil finds. Enquiries brought into museums show that most people have very little
idea of what a fossil is, and the consequences to museums of a general duty to report all ‘fossils’
do not bear thinking about! Nor is it possible to require only certain kinds of fossil (e.g. vertebrates)
to be reported. The general public ignorance makes this impossible, and it is unjust to enforce a
law if the public cannot understand its meaning.

Perhaps the only time when a duty to report may be useful is when a specific site is involved
and the excavation is being done by someone who is sufficiently expert to identify reportable fossils
of specified types. In practice, this will only happen at sites of known or suspected importance.
These sites will usually be actual or potential SSSIs, in which case such conditional collecting will
already be available as part of their management. Indeed, Holzmaden is precisely such a special
case (Wimbledon 1986). It lies within a specified area, the ‘Holzmaden Protected Excavation Area’,
where excavation of the bedrock is only permitted under several conditions, including reporting
of certain types of fossil, which is itself practicable precisely because the quarrymen are themselves
sufficiently familiar with the local palaeontology (Wild 1986).

Enforcement: compulsion, persuasion, and resources?
It is not enough just to decide that some particular control is needed. It is essential to think out
how this control might be enforced. O’Keefe and Prott’s (1984) discussion of the enforcement of
protective legislation is highly relevant to palaeontology. In particular, they comment:
‘Law should not be used to command the impossible or the seriously impracticable. Such a situation invites
non-compliance and results in disrespect for the law. A common reaction among those concerned for the
cultural heritage is to propose stronger laws and heavier penalties, but . . . the circumstances may not be
appropriate for such steps, and they may have the disadvantage of antagonising the very people whose co-
operation it is important to obtain’ (O’Keefe and Prott 1984, p. 330).

We have already argued that general legal controls of collecting are impracticable, and this remains
true even if increased money and manpower were to be devoted to such an aim. But if compulsion
will not work, incentives and education might.
The simplest incentive, as well as the most just, is for museums to be willing and able to purchase those fossils which are of real interest. Although there are obvious problems (e.g. competition with private purchasers), it is certainly the case that many collectors are happy to sell such specimens to museums at reasonable prices. The price is not just a matter of money: prompt scientific description and publication, formal acknowledgement of finder and source, and display, when appropriate, are all essential parts of the museum’s side of the bargain—which is, after all, based on the presumption that the fossils have been chosen (and their price perhaps discounted) for their use in research and display. Public recognition of a contribution to local research and education is in itself an important reward to the finder. Of course, only a limited number of museums have the expertise, interest, or funds to even consider such transactions.

Education, in its broadest sense, is essential to explain why fossil sites are interesting and why they should be conserved. The general public and specialist groups, such as landowners or professional dealers, all need to be considered. The protection of archaeological sites can only have been helped by the popularization of archaeology and especially the concept of the archaeological context of an object and its value forming part of society’s heritage, rather than mere ‘treasure’. If people understand why they should not dig into known sites and why they should take casual finds into the local museum then they are much more likely to do so. Precisely the same is true of palaeontology. Indeed, the need for education cannot be separated from other aspects of conservation. For example, police, prosecutors, judges, and juries will reject prosecutions for theft of ‘rocks’ unless they understand their value. Nor can public funding, commercial sponsorship, or private donations be expected for earth science conservation unless pains are taken to explain and involve people.

A case of education in action is the specimen enquiry service of a good museum (Clarke 1984). This is effectively a system of voluntary reporting of finds with the incentive to do so being authoritative information about the specimens. Indeed, the information derived from enquiries is one of the main justifications for providing such a service to the public, quite apart from the resulting donations. The point is made, if that were necessary, by the British Museum (Natural History)’s recovery of the dinosaur Baryonyx walkerii, which stemmed directly from an enquiry comprising a single bone of the skeleton. An active and well-organized service makes its interest known to the public in general and active collectors in particular. It may very much be doubted whether compulsion of any kind would produce better results in terms of finds reported, specimens donated, and above all goodwill.

It is also possible to teach people that ‘conservation is bad’, if it is represented as a threat to their property or livelihood. Introducing compulsion would at once have this effect. In addition, Black (1985) has argued that geological conservation has suffered loss of local goodwill by being linked to the confrontation between biological conservationists and rural land-users (e.g. in the Flow Country of Caithness or the peat mosses of Islay). More generally, the management of sites must find compromises, where possible, between palaeontological conservation and land use (e.g. Downend Chalk Pit; Anon. 1987c).

CONCLUSIONS

This review of British law must end by making two general points. First, the current (1988) policy of the Government is usually perceived as hostile to increased public spending, increased planning controls on development, increased staffing and spending by local authorities, and interference with private property, particularly nationalization of any kind. It will clearly be insuficient merely to identify the requirements for additional public resources or controls unless the positive results to be obtained are also set out, such as increased tourism (cf. the ‘Paraffin’ Young Heritage Trail in West Lothian) or an increased ability by museums to respond to schools’ needs under the new GCSE examination syllabus. We must also bear in mind the need for active education, both as an end in itself, and to stimulate the public interest in funding and enforcing palaeontological conservation.
Secondly, British palaeontological sites vary. The only universal solution for the conservation of the widely varied palaeontological sites of Britain is simply to recognize this variation and to devise an appropriate management for each site, based as far as possible on co-operation between the owner, user, and conservation agency. The management of each site depends on what are essentially local policy decisions that, by their very nature, must be left outside fixed legislation. This legislation should itself concentrate on empowering conservation agencies to take these very policy decisions (Wimbledon 1986). The NCC’s own actions, and its advice to landowners, must follow this principle of flexible, co-operative management. Given this context we can now summarize the legal situation in Britain:

1. The general legal situation. Very few existing laws specifically consider the issues raised by palaeontological site conservation and there is no up-to-date review of how more general laws actually apply. This may in part be because the appropriate legal precedents do not exist. As a matter of urgency, the NCC (or some other public body) should prepare an authoritative review and a simpler general publication. These are urgently needed to inform users and owners of sites and fossils, and to identify any problem areas (e.g. inappropriate legislation intended for other uses). This must include a separate analysis of Scotland’s distinct legal system.

2. The organizational framework. The existing legislation permits potentially excellent systems for environmental recording and monitoring but this is not happening. This is partly because of NCC policy, especially the lack of substantial involvement in locally based recording of regionally significant sites, and partly because local authorities are not required to set up museums in general and records centres in particular, with consequent problems of lack of information for the planning process. Legislation for statutory provision of museums or records centres seems unlikely at present but is a worthwhile longer-term aim.

3. Site occupiers. Site owners and occupiers are to some extent disadvantaged by permitting visitors on their land. In any case, they have extensive legal rights to prevent access and therefore use of sites. These are due to the general law, which cannot easily be revoked. Land owners’ and occupiers’ goodwill and understanding are critical and depend upon palaeontologists using sites responsibly and explaining their interest.

4. Ownership of fossils. The law relating to ownership of in situ fossils is fairly clear in that they are covered by the mineral rights to that site. The law relating to loose fossils is less clear. There may be implied licence for fossil-finders to take fossils from particular sites where this activity has been permitted over an extended period.

5. Public ownership of fossils. The compulsory reporting or public ownership of all fossils appears quite unworkable, even with a considerable input of manpower and resources to police the system and provide the necessary compensation. It would also lead to concealment of collecting, and thus little, if any, net benefit. It seems likely that any additional resources would be more effectively spent on public education and on providing funding for museums to purchase, house, and display specimens adequately.

The palaeontological community must discuss these legal questions now. Its members must find out exactly what laws affect their work now, and what is wanted in the way of new laws. O’Keefe and Prutt’s comments (1984, p. 151) on archaeology remain equally true for palaeontology:

Deciding what exactly needs to be protected is not a matter that can be resolved by draftsmen and legislators alone. The former can say how the issue should be formulated for the purpose of legislation; the latter will decide whether what has been proposed is politically feasible or desirable. It is for the cultural heritage professionals, however, to propose what needs protection . . . [their] recommendation . . . may not be accepted—for example, for political reasons—but those who decide on legislation must be presented with the material for an informed decision.
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**DISCUSSION**

**D. M. Bertie.** Regarding the possibility of state control of the export of fossils, even if it is deemed desirable by the geological community, we must first educate our political masters. As long as there is a Minister for the Arts in charge of the sciences, with little conception of the value of fossils, there will be no government support for export controls.

**R. G. Clements.** I object strongly to the nationalistic notion of *British* fossils; they are part of a global heritage and it is quite irrelevant which country they end up in, as long as they remain accessible for study and are properly cared for.

**J. M. Hancock.** I support Roy Clements' views, but would go further: ethically, the 'scientific' collector has no superior rights over the commercial collector, or even someone collecting simply to decorate their mantlepiece. Just because we claim to know more about a fossil, this does not justify any prior claim to have it. There are few recorded instances when the activities of commercial collectors have been anything except beneficial to scientific researchers. Because it is their livelihood, commercial collectors go to great lengths to extract material without damaging it—certainly more than most ordinary research scientists have either the time or money for. What they leave behind at difficult collecting sites can be of great benefit to the researcher following on, since incomplete specimens often have equal research value to complete ones.

**W. D. I. Rolfe.** Whilst no one can disagree with Roy Clements that science is international, it remains a fact that we have national museums for Britain as a whole, for Wales, Northern Ireland, and Scotland, dedicated to adding the best of the British natural heritage to their collections for research and for public education and entertainment. Local museums have lobbied the national museums successfully for the return of some significant local finds to their origins, where they are intensely appreciated by local residents and visitors alike. It would be a nonsense for national museums to actively disperse nationally important material...
abroad, if such material is sufficiently prime to be really needed and appreciated in its country of origin. There is, however, plenty of duplicate high-quality material available for export. Equally, we should try to obtain high-quality exhibition and comparative material from abroad. For example, I am anxious to acquire Messel material for public display at the Royal Museum of Scotland in Edinburgh.

The Council for British Archaeology is lobbying to revive the Antiquities Bill which failed in 1985, in the light of several current unfortunate recent prosecutions involving metal detectors. This Bill would ensure that not only all newly detected gold and silver Treasure Trove and associated finds are reported but also ‘any other material that the Secretary of State chooses to declare as such’. The Law Commission (London) have issued a discussion document on this topic, and the Conservation Committee of the Geological Society will be evaluating this to see if it could be adaptable for palaeontological purposes.